

Serial No. 10/629,746
Group Art Unit: 3637
Amdt. Dated: December 7, 2010
Reply to Final Office Action of June 7, 2010

-Page 27-

REMARKS/ARGUMENTS

With respect to the claims, claims 73 and 74 are now withdrawn. Claim 80 has been canceled. New claim 160 is submitted for consideration.

Claims 81, 82 and 94 have been amended to correct/modify claim dependencies. Claims 134 and 135 have been amended to delete references to a “depression” to address the objection raised by the Examiner.

With respect to the other claim rejections based on 35 USC 112, without prejudice and without acceptance of the Examiner’s rejections, but in order to advance prosecution, Applicant has made the following amendments:

- Claim 75 has been amended to replace “and/or” with “or”.
- Claims 75, 91, 158 and 159 have been amended to delete the phrase “without a temporary supporting member” or “without any temporary supporting members”.
- Claims 75, 91 and 144 have been amended to replace the word “unitary” with the phrase “joined together as a composite”. Support for this language may be found for example at paragraph [0056] of the specification as originally filed and Figures 1 and 4, which clearly illustrate that the components of reinforcement units 122 and 22 are similarly joined together as a composite structure.
- Paragraph [078] of the specification and claims 75, 158 and 159 have also been amended to delete the language “reinforcement unit being directly connected to and reinforcing only said panel member of the form panel unit and no other panel members in any other form panel units of the plurality of form panel units” and similar language.

Serial No. 10/629,746
Group Art Unit: 3637
Amdt. Dated: December 7, 2010
Reply to Final Office Action of June 7, 2010

-Page 28-

With respect to the claim rejections based on prior art Applicant notes as follows:

- Independent claim 134 had a prior art rejection raised by the Examiner based only on the combination of the Caine and Carroll references. Without agreeing with the Examiner's obviousness assessment of current claim 134, Applicant has further amended claim 134 to more clearly distinguish over this prior art. As a preliminary matter, Applicant notes that in Caine's system there are 3 separate components: (1) what might be considered a panel unit – slab D furnished with embedded ties or tie strips d (page 1, lines 65-66); (2) a support unit – sustaining stays B and C (page 1, lines 56-57) and the panel unit is suspended from the stays by strips d and furnishing a strong support in itself from the stays B or C above (68-70); and (3) a beam E as a reinforcing unit beneath a panel unit (slab D) and supports or bars G for the beam E at the top above that suspend the beam E there from by means of suitable wires g which are arranged to pass between the edges of slab D and are fastened about the beam E (page 1, lines 83-89). By contrast, the applicant's invention comprises of only two corresponding separate components: a panel member and a reinforcement unit.

Claim 134 now provides that reinforcement unit portion extends from proximate the upper surface of said panel member and passes through the panel member to and through the lower surface of said panel member to provide support for and at the lower surface of the panel member. With reference to pages 7-8 of the current Office Action, the Examiner states “*..said reinforcement unit comprising a portion g extending from proximate said upper surface of said panel member and passing through said lower surface of said panel member (see Figs. 4 and 5)*”. Applicant notes however that the Caine reference states at page 1, lines 87-89 “*...and suspend beams E therefrom by means of wires g or their equivalent and which are arranged to come between the edges of the slabs D and fasten around beams E*”. It is

therefore clear that wires g do not pass through each slab D and through the lower surface of each slab D, but rather extend around the side edges of each slab D. The structure and the resulting effect are therefore different in Applicant's invention as defined by claim 134. By providing one or more portions of the reinforcement unit that pass through the foam panel body, the foam panel can be readily supported at its lower surface at one or more discrete locations that are distant from the edges of the panel member. Applicant submits that the combination of any two separate slabs D/D as illustrated in Caine can not constitute a single panel member, as in Applicant's invention as defined in claim 134 a panel member is clearly a separate and distinct member and two separate slabs adjoining each other would not constitute a "member". In view of the foregoing favorable reconsideration and allowance of independent claim 134, and claims 135, 136 and 143 that are dependent thereon, is respectfully requested.

- Claim 91 has been amended in a manner similar to claim 134 and now provides that the panel support member extends from proximate the upper surface of said panel member and passes through the panel member to and through the lower surface of the panel member to provide support for and at the lower surface of the panel member. For the reasons submitted above in relation to claim 134 it is respectfully submitted that claim 91, and claims 6, 92, 104, 105, 107, 114, 115, 124 and 126 that are dependent upon claim 91, are also allowable. Similarly, in view of the amendments to claim 159, it is submitted that this claim is also allowable.
- Independent claim 128 has been further amended to even more clearly distinguish from the prior art cited by the Examiner. Claim 128 has been amended to provide that the connecting member "*extends from proximate said upper lower surface of said panel member toward said lower upper surface*". Thus the connecting member can engage the reinforcing portion that "*extends from proximate said upper surface of said panel member to proximate said*

-Page 30-

lower surface of said panel member to reinforce said panel member" as recited in claim 128. This amendment is clearly supported by the original specification and drawings (see for example Figures 4, and 4a-c). Claim 128 now also provides that the upper compression member and the connecting member have been displaced towards each other such that said panel member is compressed by and between the connecting member and the upper compression member. Support for this amendment can be found for example at paragraph [0078] of the specification as originally filed. The Examiner stated at pages 6-7 of the latest Office Action that in Caine "*Panel member (D/D) is held in compression between the upper member (B) and connector E*".

Applicant submits that Caine does not teach or suggest the feature now provided in claim 128 that the upper compression member and the connecting member have been displaced towards each other such that said panel member is compressed by and between a connecting member that extends from proximate a lower surface and the upper compression member.

Applicant notes that the word "compression" means "the state of being compressed or being shortened by a force"

[*"Dictionary of Architecture and Construction", Third Edition, edited by Cyril M. Harris (McGraw-Hill), 2000*]

"Compression -

- 1)*The state of being compressed, or being shortened by a force*
- 2)*The change in length produced in a test specimen by a compressive load."*

The phrase “Compression member” means “any member in which the primary stress is longitudinal compression” (*Dictionary of Architecture and Construction*).

Caine discloses slab DD that is only temporarily reinforced by the beam E suspended to the beam G by wire g. Wires g are arranged to come between the edges of the slab D and fastened about beam E. Slab D has embedded tie strips d by means of which the stays B are attached to slab D. Figures 4 and 5 show clearly that wire g passes through between the joints of the slabs DD. Suspension of slab D with stay B by means of the strips d does not result compression load of the slab D between the stay B and beam E. Strengthening of the slab D by means of the beam E suspended to the bar G by the wires g does not cause compression load of the slab D between the beam E and stay B. Compression of the slab D between the stay B and beam E might possibly occur if there was a twisting of the wires g during suspension of the beam E located beneath the slab D from the stays B located above the slab D. But there is no indication that this would occur. Beam E and stay B are independent from each other as clearly shown in the figures of Caine and thus it is believed there would be no compression of slabs D between Beam E and stay B. By contrast in the system of amended claim 128, there is compression of the panel member by and between the connecting member (which extends from proximate the lower surface of the panel member) and the upper compression member (positioned above the upper surface of the panel member). Applicant submits that this feature in combination with the other features of claim 128 as amended, are not taught or suggested by Caine or any of the other prior art cited by the Examiner and accordingly favorable reconsideration and allowance of this claim 128 and all claims dependent thereon is requested.

- Applicant respectfully requests that the Examiner reconsider the rejection of current independent claim 144. Applicant notes that in the Response filed

December 11, 2009, Applicant amended claim 144 to substantially incorporate the subject matter of former claim 5 (claim 5 was cancelled but the Response inadvertently did not expressly point out the corresponding amendment to claim 144). Applicant notes that in several previous Office Actions dated September 17, 2007; June 25, 2008; June 11, 2009, the Examiner had indicated that the subject matter of former claim 5 would be allowable if rewritten to incorporate the subject matter of base and intervening claims. Applicant respectfully submits that none of the cited prior art alone or in combination discloses or suggests a system as claimed in claim 144 which includes a reinforcement unit with a connector and at least one vertical rod secured to the connector, the vertical rod also being secured to a panel member with the connector, and wherein the connector reinforces the panel member and provides support to the form panel unit with the upwardly directed surface reinforcing the panel member. Therefore, it is submitted that claim 144, and dependent claims 2, 7, 8, 12, 13, 15, 16, 25, 29, 34, 35, 69, 72, 93, 122, 123, 125, 145 and 147, are allowable.

- Claim 75 has also been amended to incorporate subject matter similar to that of former claim 5. Specifically claim 75 now includes the following:

“...wherein said reinforcement unit further comprises a vertical member oriented generally vertically and generally orthogonal to both said strengthening member and said at least one structural supporting member, said vertical member being connected to a connector, wherein said connector provides support to said form panel member at a lower surface of said panel member with an upwardly directed surface of said connector”.

As referenced above, the Examiner previously considered the subject matter of former claim 5 to be allowable (at least when combined with the base claim and intervening claims). It is submitted that none of the prior art cited by the

Examiner render claim 75 as now amended as unpatentable. Accordingly, allowance of claim 75 and claims 76-83 that are dependent thereon, is respectfully requested.

- Claim 158 has been amended to provide that at least one of the first and second structural supporting members has a generally vertical, planar web surface with an unobstructed upper portion configured to allow a side edge of the panel member to be inserted against the planar surface of the web such that said a tight sealing fit can be formed between the panel member and the first and second structural supporting members. Support for this amendment can be found in Figures 2, 2a, 2b and 4b, and the accompanying text in the original specification [see for example paragraphs [0066] and [0067]. It is noted that in the Macdonald reference the stringers 20a, 20b both have an upper flange portion. Likewise in Caine, beams A are both I beams with upper flanges. The result is that by having flanges on both of the support members in each set, a panel member can not be readily inserted between the spaced support member to provide for a tight sealing fit. In Caine, to prevent the escape of concrete during concrete pouring, it is necessary to provide side slabs D' to that the formwork can be formed around and underneath the I-Beams A. In MacDonald an elaborate system is provided such that each slab unit 22e can be placed directly in abutment with each other in intermediate locations. However there is no clear disclosure of how the slab units will contact with the upper flange portions of stringers 20a, 20b. There will obviously be significant challenges in providing for a seal to prevent concrete seepage between the slab units 22 and the stringers 20a, 20b in MacDonald. By contrast, the applicant has selected structural supporting members that have at least one planar surface with an unobstructed upper portion that allows a side edge of the panel member to be inserted against the planar surface of the web such that said a tight sealing fit can be formed between the panel member and the first and second structural supporting members. It is therefore submitted that claim 158 as now amended is allowable.

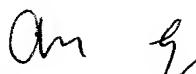
Serial No. 10/629,746
Group Art Unit: 3637
Amdt. Dated: December 7, 2010
Reply to Final Office Action of June 7, 2010

-Page 34-

- New claim 160 is submitted for consideration by the Examiner. New claim 160 provides a new independent claim that substantially incorporates the subject matter of original claim 144 and aspects of former claim 74. Applicant notes that in several prior Office Actions including the Office Actions dated September 17, 2007; June 25, 2008; June 11, 2009, the Examiner had indicated that the subject matter of former claim 74 would be allowable if re-written to incorporate the subject matter of base and intervening claims. New independent claim 160 includes the feature of a reinforcement unit with four portions, with the fourth portion secured to a third portion between a second portion and the upper surface of the panel member, such that the panel member is compressed between and by the first and the fourth portions of the reinforcement unit. It is submitted that claim 160 is allowable over the prior art cited the Examiner.

In view of the foregoing amendments and remarks, favourable reconsideration and allowance of this application is respectfully requested.

Respectfully submitted,


Alistair G. Simpson
Registration No. 37,040

SMART & BIGGAR
438 University Avenue
Suite 1500, Box 111
Toronto, Ontario
Canada M5G 2K8
Telephone: (416) 593-5514
Facsimile: (416) 591-1690